

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

MONITORING AND REPORTING PROGRAM
ORDER NO. R5-2009-0875
FOR
SACRAMENTO VALLEY WATER QUALITY COALITION
UNDER
AMENDED ORDER NO. R5-2006-0053
COALITION GROUP CONDITIONAL WAIVER OF
WASTE DISCHARGE REQUIREMENTS
FOR
DISCHARGES FROM IRRIGATED LANDS

This Monitoring and Reporting Program Order (MRP Order) is issued pursuant to California Water Code (Water Code) section 13267 and 13269, which authorize the California Regional Water Quality Control Board, Central Valley Region (hereafter Central Valley Water Board) to require preparation and submittal of technical and monitoring reports. Water Code section 13269 requires a waiver of waste discharge requirements to include as a condition the performance of monitoring and the public availability of monitoring results.

The Executive Officer is issuing this MRP Order, to establish specific monitoring and reporting requirements for the Sacramento Valley Water Quality Coalition (Sacramento Valley Coalition or Coalition Group). The Sacramento Valley Coalition is enrolled under *Amended Coalition Group Conditional Waiver of Waste Discharge Requirements for Discharges from Irrigated Lands, Order No. R5-2006-0053* (Waiver). The Sacramento Valley Coalition represents approximately 8,500 individual operators of agricultural lands within the Sacramento River Basin. These agricultural growers operate specific parcels, and the Sacramento Valley Coalition has submitted participant lists to the Central Valley Water Board identifying the parcels and growers enrolled in the coalition, pursuant to Order No. R5-2006-0053.

This MRP Order meets or exceeds the minimum requirements of the Waiver. The MRP Order is additionally consistent with Monitoring and Reporting Program Order No. R5-2008-0005 for Coalition Groups Under Amended Order No. R5-2006-0053 (Coalition Group MRP Order) and meets or exceeds the monitoring and reporting requirements under the Coalition Group MRP Order. The Sacramento Valley Coalition shall hereafter comply with the MRP Program under this MRP Order rather than the Coalition Group MRP Order.

Pursuant to Water Code section 13269(a)(2), monitoring requirements must be designed to support the development and implementation of the waiver program, including, but not limited to, verifying the adequacy and effectiveness of the Waiver's conditions. The reports required by this MRP Order are needed to evaluate impacts of discharges of waste from irrigated agricultural operations to waters of the state, to determine compliance with the Waiver, and to support the development and implementation of the Waiver as it applies to the Sacramento Valley Coalition and its members. As provided in

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the Waiver, this MRP Order is issued to the Sacramento Valley Coalition, because the Sacramento Valley Coalition represents irrigated agricultural facilities that discharge waste to waters of the State. This MRP Order shall remain in effect until 31 December 2014 or when replaced by a revised MRP Order approved by the Executive Officer. The Waiver and other evidence supporting issuing this MRP Order can be found on the Central Valley Water Board's website and in its public files. The Information Sheet for the Sacramento Valley Coalition MRP Order (Attachment A), which identifies the regulatory background, program objectives, and development of minimum requirements, is incorporated as part of this Order.

The Sacramento Valley Coalition has been monitoring water quality and reporting monitoring results to the Central Valley Water Board in accordance with the Irrigated Lands Regulatory Program since July 2004. The results indicate that water quality is impacted in some areas within Sacramento Valley Coalition boundaries, and the Executive Officer has requested the preparation of Management Plans to address these impacts.

The submittal of an acceptable Management Plan and Quality Assurance Program Plan (QAPP) that meets the requirements of this MRP Order is accordingly a condition of the Waiver. Sacramento Valley Coalition submitted a comprehensive Management Plan in December 2008, which was subsequently approved by the Executive Officer in February 2009. The QAPP must be submitted to the Central Valley Water Board within two months of the adoption of this MRP Order.

The timing of applicable steps is further clarified as follows:

ACTION	ACTION DEADLINE
Implementation of the MRP Order	1 January 2010
Submittal of Sacramento Valley Coalition QAPP	Two months from adoption of MRP Order
Submittal of Supporting Documentation for Assessment Monitoring Parameters and Schedule.	On or before 15 November of the year prior to the Assessment Monitoring year
Submittal of Pilot Watershed Management Practices Plans	On or before 1 March 2010, or according to schedule determined by the Executive Officer
Submittal of Evidence of Management Practice Implementation for Pilot Program	On or before 1 May 2010, or according to schedule determined by the Executive Officer
Revisions or additions to Sacramento Valley Coalition Management Plan	Annually, or according to schedule determined by the Executive Officer

PART I. MRP ORDER OBJECTIVES

The Water Code mandates that monitoring requirements for a Waiver be designed to verify the adequacy and effectiveness of the Waiver's conditions. One of the conditions

of the Waiver is that discharges of waste from irrigated lands to surface waters of the State shall not cause or contribute to an exceedance of an applicable water quality standard. Water quality standards are defined for the Irrigated Lands Regulatory Program (ILRP) in Attachment A of the Coalition Group Conditional Waiver and Attachment B (Applicable Definitions and Acronyms) of this Order.

The objectives for ILRP Monitoring and Reporting are identified in Attachment A – Information Sheet, which is part of this MRP Order. Implementation of this Order must provide information to determine whether discharges are in compliance with the conditions of the Waiver, including compliance with applicable water quality standards.

PART II. MONITORING STRATEGY AND SITE INFORMATION

A. MONITORING STRATEGY

This MRP Order includes two monitoring strategies, a Primary Strategy and an Alternate Strategy. The Primary Strategy is consistent with the approach described in Monitoring and Reporting Program Order No. R5-2008-0005, and includes the key elements described in the Sacramento Valley Coalition's 2009 MRP Plan. This strategy includes the types of monitoring needed to meet MRP Order objectives: Assessment Monitoring to evaluate the condition of the water body, Core Monitoring for trends, and Special Project Monitoring for source identification and other problem solving, as described in Part III. The Coalition's basis for monitoring site selection is provided in Attachment C (Supporting Documentation).

The Alternate Strategy (optional) requires development of a Pilot Watershed Management Practices Plan (Pilot Plan) and allows for a modified monitoring approach when the criteria described in Part II.B are met. Up to three subwatershed or drainage areas within the Sacramento Valley Coalition may implement the Alternate Strategy for a two-year period. Under the Alternate Strategy, and upon approval by the Executive Officer, Assessment and Core monitoring will not be required during the period of the Pilot Plan. However, any Special Project monitoring must continue. Where the Alternate Strategy is approved, documentation of management practice implementation (as described in Attachment D), combined with Special Project monitoring, will meet the requirements of Water Code section 13269(a)(2) for monitoring and will be sufficient to verify the adequacy and the effectiveness of the Waiver's conditions. The requirements of the Pilot Watershed Management Practices Plan are described further in Part II.B and Attachment D.

B. PILOT WATERSHED MANAGEMENT PRACTICES PLANS (OPTIONAL)

As part of the Alternate Strategy for monitoring, development of a Pilot Watershed Management Practices Plan may be implemented (but is not required) in up to three subwatershed or drainage areas within the Sacramento Valley Coalition. A separate Pilot

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Plan for each area must be developed, and each Pilot Plan must encompass the entire geographic area of the selected subwatershed or drainage. The Pilot Plans are subject to approval by the Executive Officer and will be in effect for two years from the date when both the Pilot Plan and reduced monitoring documentation have been approved, at which time they will be reevaluated for effectiveness. The Executive Officer will determine if renewal of a Pilot Plan can be approved, based on whether the measures of success have been met (Attachment D) and whether the Coalition shows a high level of commitment to implementation of the Pilot Plan. The Executive Officer may request changes before approving renewal of a Pilot Plan, or may disapprove renewal.

A Pilot Watershed Management Practices Plan must identify and describe the following elements:

- A set of management objectives (by crop type or type of agricultural operation),
- A set of management practices that will be effective in addressing agricultural discharge-related impacts to water quality,
- The approach that will be used to promote implementation of the management objectives and practices, and
- The mechanism that will be used to track the level of management practice implementation and evaluate effectiveness.

The Coalition will be eligible to conduct reduced monitoring in a subwatershed area upon approval of a Pilot Watershed Management Practices Plan and when evidence of management practice implementation by 75% of member growers is submitted to the Central Valley Water Board. Evidence of implementation will be documented in a questionnaire that member growers complete and submit to their Subwatershed Group. Attachment D provides further details of this requirement. Under reduced monitoring, the Coalition is not required to conduct Assessment or Core monitoring. However, Special Project monitoring must continue, as needed. The Coalition may propose an alternative measure of management practice implementation (e.g. a percent of acreage representing all major crop types and practices) for approval by the Executive Officer.

The Coalition shall submit evidence of management practice implementation by 95% of member growers at the beginning of the second year of the Pilot Plan. If this condition is not met at the beginning of the second year, the Coalition may describe the reasons and report on their progress, describe how and when the 95% will be met, and request approval to continue with the Pilot Plan.

The Pilot Watershed Management Practices Plans must be submitted to the Central Valley Water Board within two months of the implementation date of this MRP Order, or as directed by the Executive Officer. Evidence of management practice implementation by 75% of member growers must be submitted to the Central Valley Water Board within four months of the implementation date of this plan, or according to a schedule approved by the Executive Officer.

Attachment D of this Order provides further explanation of the requirements for developing a Pilot Plan.

C. MONITORING SITE INFORMATION

The monitoring sites identified in this MRP Order are sites that have been previously monitored by the Sacramento Valley Coalition. The description and rationale for selection of the monitoring sites in each subwatershed are provided in Attachment C (Supporting Documentation). The monitoring sites are suitably representative to characterize water quality for surface waters of the State that may be affected by irrigated agriculture within the Sacramento Valley Coalition boundaries. The sites are identified in Table 1, below.

TABLE 1. Sacramento Valley Water Quality Coalition Monitoring Sites

Site Identification	Site Code	Type ¹	Latitude	Longitude
Butte-Yuba-Sutter Subwatershed Monitoring Sites				
Lower Honcut Creek at Hwy 70	LHNCT	Core, Assmt, SP	39.3092 N	-121.5954 W
Lower Snake River at Nuestro Road	LSNKR	Core, Assmt, SP	39.1853 N	-121.7036 W
Pine Creek at Nord Gianella Road	PNCGR	Core, Assmt, SP	39.7811 N	-121.9877 W
Sacramento Slough Bridge near Karnak	SSKNK	Core, Assmt, SP	38.7850 N	-121.6533 W
Butte Slough at Pass Road	BTTSL	SP	39.1873 N	-121.9085 W
Gilsizer Slough at George Washington Rd	GILSL	SP	39.0090 N	-121.6716 W
Wadsworth Canal at South Butte Road	WADCN	SP	39.1534 N	-121.7344 W
Colusa-Glenn Subwatershed Monitoring Sites				
Colusa Basin Drain above Knights Landing	COLDR	Core, Assmt, SP	38.8121 N	-121.7741 W
Freshwater Creek at Gibson Road	FRSHC	Core, Assmt, SP	39.1748 N	-122.2265 W
Walker Creek near 99W and CR33	WLKCH	Core, Assmt, SP	39.6242 N	-122.1965 W
Butte Creek at Gridley Road Bridge	BUCGR	SP	39.3619 N	-121.8927 W
Logan Creek at 4 Mile-Excelsior Road	LGNCR	SP	39.3653 N	-122.1161 W
Lurline Creek at 99W	LRLNC	SP	39.2190 N	-122.2461 W
Rough and Ready Pumping Plant (Rd 108)	RARPP	SP	38.8621 N	-121.7927 W
Stone Corral Creek near Maxwell Road	SCCMR	SP	39.2751 N	-122.1043 W
Stony Creek on Hwy 45 near Road 24	STYHY	SP	39.7101 N	-122.0040 W
El Dorado Subwatershed Monitoring Sites				
North Canyon Creek	NRTCN	Core, Assmt, SP	38.7604 N	-120.7102 W
Coon Hollow Creek	COONH	SP	38.7534 N	-120.7240 W
Lake-Napa Subwatershed Monitoring Sites				

TABLE 1. Sacramento Valley Water Quality Coalition Monitoring Sites

Site Identification	Site Code	Type ¹	Latitude	Longitude
Middle Creek upstream from Highway 20	MDLCR	Core, Assmt, SP	39.1764 N	-122.9130 W
Pope Creek us from Lake Berryessa	PCULB	Core, Assmt, SP	38.6464 N	-122.3642 W
McGaugh Slough at Finley Road East	MGSLU	SP	39.0042 N	-122.8623 W
Capell Creek u/s from Lake Berryessa	CCULB	SP	38.4825 N	-122.2410 W
Pit River Subwatershed Monitoring Sites				
Pit River at Pittville	PRPIT	Core, Assmt, SP	41.0454 N	-121.3317 W
Pit River at Canby Bridge	PRCAN	SP	41.4017 N	-120.9310 W
Fall River at Fall River Ranch Bridge	FRRRB	SP	41.0351 N	-121.4864 W
Placer-Nevada-South Sutter-North Sacramento Subwatershed Monitoring Sites				
Coon Creek at Brewer Road	CCBRW	Core, Assmt, SP	38.9340 N	-121.4518 W
Coon Creek at Striplin Road	CCSTR	SP	38.8661 N	-121.5803 W
Sacramento-Amador Subwatershed Monitoring Sites				
Cosumnes River at Twin Cities Road	CRTWN	Core, Assmt, SP	38.2910 N	-121.3804 W
Grand Island Drain near Leary Road	GIDLR	Core, Assmt, SP	38.2399 N	-121.5649 W
Dry Creek at Alta Mesa Road	DCGLT	SP	38.2480 N	-121.2260 W
Laguna Creek at Alta Mesa Road	LAGAM	SP	38.3110 N	-121.2263 W
Shasta-Tehama Subwatershed Monitoring Sites				
Anderson Creek at Ash Creek Road	ACACR	Core, Assmt, SP	40.4180 N	-122.2136 W
Burch Creek west of Rawson Road	BRCRR	SP	39.9254 N	-122.2182 W
Coyote Creek at Tyler Road	COYTR	SP	40.0926 N	-122.1590 W
Solano-Yolo Subwatershed Monitoring Sites				
Shag Slough at Liberty Island Bridge	SSLIB	Core, Assmt, SP	38.3068 N	-121.6934 W
Ulati Creek at Brown Road	UCBRD	Core, Assmt, SP	38.3070 N	-121.7940 W
Willow Slough Bypass at Pole Line	WLSPL	Core, Assmt, SP	38.5902 N	-121.7306 W
Cache Creek at Capay Diversion Dam	CCCPY	SP	38.7137 N	-122.0851 W
Tule Canal at I-80	TCHWY	SP	38.5728 N	-121.5827 W
Z Drain – Dixon RCD	ZDDIX	SP	38.4522 N	-121.6752 W
Upper Feather River Subwatershed Monitoring Sites				

TABLE 1. Sacramento Valley Water Quality Coalition Monitoring Sites

Site Identification	Site Code	Type ¹	Latitude	Longitude
Middle Fk Feather River above Grizzly Ck	MFFGR	Core, Assmt, SP	39.8160 N	-120.4260 W
Spanish Creek below Greenhorn Creek	SPGRN	Core, Assmt, SP	39.9735 N	-120.9103 W
Indian Creek below Arlington Bridge	INDAP	Core, Assmt, SP	40.0846 N	-120.9161 W

1. Core = core monitoring sites; Assmt = assessment monitoring sites; SP = special project monitoring sites

Because the sites in Table 1 were selected by the Coalition as representative sites, the monitoring data collected through Core and Assessment monitoring shall be considered representative of conditions in the drainages that are represented (Attachment C). When action(s) must be taken based on exceedances at the representative sites, such as management practice implementation, the same action(s) shall be taken throughout the irrigated lands being represented by the identified representative sites.

D. QUALITY ASSURANCE PROJECT PLAN (QAPP)

The Sacramento Valley Coalition must develop a QAPP to include watershed and site-specific information, project organization and responsibilities, and the quality assurance components in Attachment E of this MRP Order. Attachment E presents the requirements and the guidelines for development of the Sacramento Valley Coalition QAPP, including the laboratory and field requirements to be used for data evaluation. Any proposed modifications to the approved QAPP must receive Executive Officer approval prior to implementation.

The Central Valley Water Board may conduct an audit of the Coalition Group's contracted laboratories at any time in order to evaluate compliance with the QAPP. Quality control requirements are applicable to all the constituents listed in Attachment E, as well as any additional constituents that are analyzed or measured, as described in the appropriate method. Acceptable methods for laboratory and field procedures as well as quantitation limits are described in Attachment E.

PART III. MONITORING SCHEDULE AND PARAMETERS

Table 2 identifies the monitoring sites that will be sampled for Assessment and Core monitoring from January 2010 through December 2014. A description of Special Project monitoring studies was provided in the Sacramento Valley Coalition's approved 2009 Management Plan, which reflects the management plans required through December 2008. Descriptions of Assessment, Core and Special Project monitoring activities follow.

A. ASSESSMENT MONITORING

Assessment monitoring shall take place at newly established monitoring sites or at sites that have not been fully characterized. Once a site is fully characterized, Assessment and Core monitoring shall be conducted according to a three-year cycle, as shown in the

schedule presented in Table 2. Assessment monitoring shall occur for one year at all Assessment monitoring sites, followed by Core Monitoring for the next two years. This cycle will be repeated in subsequent years. The purpose of periodically repeating the Assessment Monitoring analytical regime is to evaluate the effects of changes in agricultural land-use and management practices and provide information about long-term trends and effectiveness of the management practices.

Assessment monitoring shall occur at accessible sites, when water is present, for general water quality parameters, nutrients, pathogens, water column toxicity, pesticides, and metals. As described in Part III.D, the Coalition shall identify a specific set of assessment monitoring parameters for each subwatershed area by 15 November of the year prior to the assessment monitoring year. Additionally, monitoring must include water bodies and constituents on the Clean Water Act section 303(d) list (303(d) list) when agriculture is identified as a contributing source. The Coalition shall conduct appropriate monitoring when implementing an applicable Total Maximum Daily Load (TMDL). Sampling events shall be scheduled to attempt to capture at least two storm runoff events per year. No more than one complete sample per month is required.

The Coalition shall identify the appropriate assessment monitoring periods (e.g., months, seasons) for the parameters that require testing. For registered pesticides, the monitoring periods shall be determined utilizing the three previous years of available PUR data. Based on an analysis of the PUR data set, the months of sample collection for each pesticide will be selected using the percent of total irrigated acres treated per month of application. Summed together, the selected monitoring months should encompass 85 percent or more of the total acres to which each pesticide was applied. In general, any single month that accounts for more than five percent of the total acreage treated should be considered for monitoring. The Coalition may also evaluate pesticide use trends to determine appropriate monitoring months. For metals, the monitoring periods shall be determined utilizing previous monitoring results, knowledge of agricultural use patterns (if applicable), chemical characteristics, and other applicable criteria. All other required parameters shall be monitored during each monitoring event in the year of assessment monitoring.

Based on Sacramento Valley Coalition's completion of prior sampling events and monitoring results, Assessment and Core Monitoring will be conducted from 2010 through 2014 according to the schedule identified in Table 2. The Sacramento Valley Coalition may submit written requests for the removal or addition of assessment monitoring sites or parameters, or to modify the monitoring frequency for approval by the Executive Officer.

B. CORE SITE MONITORING

Core sites are selected from Assessment Monitoring locations to track trends in water conditions over time. Core monitoring will be conducted at the frequency identified in Table 2 and every three years must include a repetition of the Assessment Monitoring

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analytical regime. Core monitoring consists of monthly monitoring at accessible sites, when water is present, for a reduced parameter list identified in Part III.D of this MRP Order, as well as other parameters of concern when specifically requested by the Central Valley Water Board Executive Officer. Other parameters of concern may be selected from toxicity, pesticides, or metals analyses that result in exceedance or detection during Assessment Monitoring. The Executive Officer may require parameters of concern to be monitored at a frequency other than monthly to ensure appropriate characterization of the parameter. The Sacramento Valley Coalition may submit written requests for the removal or addition of core monitoring sites or parameters, or to modify the monitoring frequency for approval by the Executive Officer.

TABLE 2. Core and Assessment Monitoring Schedule

Site Identification	Site Code	2010	2011	2012	2013	2014
Butte-Yuba-Sutter Subwatershed Monitoring Sites						
Lower Honcut Creek at Hwy 70	LHNCT	Core	Core	Assmt	Core	Core
Lower Snake River at Nuestro Road	LSNKR	Core	Assmt	Core	Core	Assmt
Pine Creek at Nord Gianella Road	PNCGR	Core	Assmt	Core	Core	Assmt
Sacramento Slough Bridge near Karnak	SSKNK	Core	Assmt	Core	Core	Assmt
Colusa-Glenn Subwatershed Monitoring Sites						
Colusa Basin Drain above Knights Landing	COLDR	Core	Assmt	Core	Core	Assmt
Freshwater Creek at Gibson Road	FRSHC	Core	Assmt	Core	Assmt	Core
Walker Creek near 99W and CR33	WLKCH	Core	Core	Assmt	Core	Core
El Dorado Subwatershed Monitoring Sites						
North Canyon Creek	NRTCN	Core	Assmt	Core	Core	Assmt
Lake-Napa Subwatershed Monitoring Sites						
Middle Creek upstream from Highway 20	MDLCR	Core	Assmt	Core	Core	Assmt
Pope Creek upstream from Lake Berryessa	PCULB	Core	Assmt	Core	Core	Assmt
Pit River Subwatershed Monitoring Sites						
Pit River at Pittville	PRPIT	Core	Assmt	Core	Core	Assmt
Placer-Nevada-South Sutter-North Sacramento Subwatershed Monitoring Sites						
Coon Creek at Brewer Road	CCBRW	Core	Assmt	Core	Core	Assmt
Sacramento-Amador Subwatershed Monitoring Sites						
Cosumnes River at Twin Cities Road	CRTWN	Core	Assmt	Core	Core	Assmt
Grand Island Drain near Leary Road	GIDLR	Core	Assmt	Core	Core	Assmt
Shasta-Tehama Subwatershed Monitoring Sites						
Anderson Creek at Ash Creek Road	ACACR	Core	Assmt	Core	Core	Assmt
Solano-Yolo Subwatershed Monitoring Sites						
Shag Slough at Liberty Island Bridge	SSLIB	Core	Assmt	Core	Core	Assmt
Ulati Creek at Brown Road	UCBRD	Core	Assmt	Core	Core	Assmt
Willow Slough Bypass at Pole Line	WLSPL	Core	Assmt	Core	Core	Assmt
Upper Feather River Subwatershed Monitoring Sites						
Middle Fk Feather River above Grizzly Creek	MFFGR	Core	Assmt	Core	Core	Assmt
Spanish Creek below Greenhorn Creek	SPGRN	Core	Assmt	Core	Core	Assmt
Indian Creek below Arlington Bridge	INDAB	Core	Assmt	Core	Core	Assmt

C. SPECIAL PROJECT MONITORING

Special project monitoring includes specific targeted monitoring or studies to address implementation of a TMDL or implementation of a Management Plan that results from exceedances.

Based on previous monitoring results through 2008, the Sacramento Valley Coalition has identified locations where Management Plans need to be implemented. These are identified as SP (special project) sites in Table 1. The monitoring sites, special study parameters, management plan strategy, implementation steps, and schedule are presented in the Sacramento Valley Coalition Group's approved 2009 Management Plan.

Special project monitoring constituents, frequency or other elements shall be reviewed with Central Valley Water Board staff at least annually and may be revised over time. Revisions of monitoring sites, constituents, schedule, and other elements for Management Plans which are approved by the Executive Officer will then supersede those in prior Management Plans.

D. MONITORING PARAMETERS

Water quality and flow monitoring shall be used to assess the wastes in discharges from irrigated lands to surface waters and to evaluate the effectiveness of management practice implementation efforts. Water quality is evaluated with both field-measured parameters and laboratory analytical data. Field measured parameters shall include flow, pH, electrical conductivity, temperature, and dissolved oxygen. Laboratory analytical data shall include, but not be limited to, the constituents, parameters, and tests listed in Table 3 of this MRP Order. The pesticide and metals parameters to be monitored shall be identified according to the criteria discussed below. 303(d) listed pollutants shall also be monitored if agriculture is identified as a contributing source. When implementing an applicable TMDL, the Coalition shall conduct monitoring of the appropriate constituent(s). The organochlorine pesticides identified in Table 3 of this MRP Order shall be monitored during Assessment Monitoring years according to a schedule and frequency determined by the Coalition and approved by the Executive Officer. Site conditions shall be documented by taking digital photos at every monitoring site during each monitoring event. Table 3 identifies parameters to be measured during the Core and Assessment monitoring periods.

The Coalition shall identify the pesticide (current use) and metals monitoring parameters for each subwatershed prior to the beginning of each assessment monitoring year. The specific pesticides to be monitored at sites within each subwatershed shall be determined (in part) using three consecutive years (most recent available) of pesticide use information and the Coalition's previous monitoring results. Based on this information, the Coalition shall identify all pesticides applied or detected during the three-year PUR evaluation period. Pesticides that have not been applied within a subwatershed area for three consecutive years and have not been detected during Coalition Group monitoring

will not require monitoring during the subsequent year of Assessment monitoring. Pesticides (current use) that have been applied and/or detected in a subwatershed area during all or part of three consecutive years of PUR data will be monitored, unless exclusion from monitoring is justified through an evaluation of additional factors. Additional factors that may be considered to determine if monitoring of a pesticide is warranted include: the proportion of acres treated out of total irrigated acres; total pounds or pounds per acre of pesticide applied; application rates; LC50 or EC50 toxicity thresholds; prior monitoring results; availability of reliable analytical methods; chemical characteristics of the parameter, such as mobility or half-life. The Coalition may also consider pesticide-use trends when evaluating pesticides that may need to be monitored. A complete documentation of the evaluations must be provided, including a table or chart that summarizes the three previous years of pesticide use data.

The metals parameters to be monitored at sites within each subwatershed shall be determined through an evaluation of several factors, which taken together will provide the basis for including or excluding each metal. These evaluation factors shall include, but not be limited to: documented use of the metal applied to lands for agricultural purposes; prior monitoring results; geological or hydrological conditions; and mobilization or concentration through agricultural operations. The Coalition may also consider other factors such as acute and chronic toxicity thresholds and chemical characteristics of the metals. The Coalition shall evaluate the metals parameters listed in Table 3 to determine which metals warrant monitoring for each subwatershed. A complete documentation of the evaluations must be provided.

The Coalition shall identify the pesticide and metals parameters for each subwatershed area by 15 November of the year prior to the Assessment Monitoring year. All Core Monitoring parameters are also Assessment Monitoring parameters (Table 3).

Optional Bioassessment Monitoring. Bioassessment monitoring is not a requirement of this Order, and there are no Basin Plan requirements or standards addressing the results of bioassessment monitoring. Bioassessments may serve monitoring needs through three primary functions: 1) screening or initial assessment of conditions; 2) characterization of impairment and diagnosis; and 3) trend monitoring to evaluate improvements through the implementation of management practices. Bioassessment data from wadeable impaired waterbodies may serve as a benchmark for measuring both current biological conditions and success of management practices.

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TABLE 3: Monitoring Parameters

	Measured Parameter	Matrix	Assessment	Core
Field Measurements	Flow (cfs)	Water	x	x
	Photo Documentation	Site	x	x
	Electrical Conductivity (µs/cm)	Water	x	x
	Temperature (°C)	Water	x	x
	pH	Water	x	x
	Dissolved Oxygen (mg/L)	Water	x	x
Drinking Water	E. Coli	Water	x	x
	Total Organic Carbon (TOC)	Water	x	x
Gen Phys	Hardness (as CaCO ₃)	Water	x	
	Total Suspended Solids (TSS)	Water	x	x
	Turbidity	Water	x	x
Metals	Arsenic (total)	Water	TBD	(no metals) ¹
	Boron (total)	Water	TBD	
	Cadmium (total and dissolved)	Water	TBD	
	Copper (total and dissolved)	Water	TBD	
	Lead (total and dissolved)	Water	TBD	
	Molybdenum (total)	Water	TBD	
	Nickel (total and dissolved)	Water	TBD	
	Selenium (total)	Water	TBD	
	Zinc (total and dissolved)	Water	TBD	
Nutrients	Total Ammonia (as N)	Water	x	x
	Unionized Ammonia (calc value)	Water	x	
	Nitrogen, Nitrate+Nitrite	Water	x	
	Total Kjeldahl Nitrogen	Water	x	
	Total Phosphorus as P	Water	x	
	Soluble Orthophosphate	Water	x	
Pesticides	Current use pesticides determined according to the criteria in Part III.D.	Water	TBD	(no pesticides) ¹
303(d)	303(d) listed constituents to be monitored if agriculture is identified as a contributing source	Water or Sediment	TBD	TBD

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TABLE 3: Monitoring Parameters

	Measured Parameter	Matrix	Assessment	Core
Group A OC Pesticides	Aldrin*	Water	TBD	(no pesticides) ¹
	a-BHC*	Water	TBD	
	b-BHC*	Water	TBD	
	d-BHC*	Water	TBD	
	g-BHC (Lindane)*	Water	TBD	
	a-Chlordane*	Water	TBD	
	g-Chlordane*	Water	TBD	
	Endosulfan I*	Water	TBD	
	Endosulfan II*	Water	TBD	
	Endosulfan Sulfate*	Water	TBD	
	Heptachlor*	Water	TBD	
	Heptachlor epoxide*	Water	TBD	
	Toxaphene*	Water	TBD	
OC Pest	Dicofol	Water	x	(no pesticides) ¹
	DDD(p,p')	Water	x	
	DDE(p,p')	Water	x	
	DDT(p,p')	Water	x	
	Dieldrin	Water	x	
	Endrin	Water	x	
	Methoxychlor	Water	x	
Toxicity	Ceriodaphnia dubia	Water	x	As needed, see Part II.E
	Pimephales promelas	Water	x	
	Selenastrum capricornutum	Water	x	
	Toxicity Identification Evaluation	Water		
Toxicity	Hyaella azteca	Sediment	x	
Pesticides & Sediment Parameters	Bifenthrin	Sediment	As needed**	
	Cyfluthrin	Sediment	As needed	
	Cypermethrin	Sediment	As needed	
	Esfenvalerate/Fenvalerate	Sediment	As needed	
	Fenpropathrin	Sediment	As needed	
	Lambda cyhalothrin	Sediment	As needed	
	Permethrin	Sediment	As needed	
	Chlorpyrifos	Sediment	As needed	
	Total Organic Carbon	Sediment	x	
	Grain Size	Sediment	x	

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* Group A pesticides will only be analyzed for water bodies that are 303(d) listed for Group A Pesticides, or that are directly tributary to stream segments that are 303(d) listed for Group A

** Sediment Toxicity Tests (Assessment Sites only): For sediment samples measuring significant toxicity and $\geq 20\%$ from Control, the sediment pesticide analysis will be performed.

1. Pesticide and metals monitoring is not required during Core Monitoring unless identified as a Parameter of Concern per Section III.B.

H. TOXICITY PROCEDURES - TOXICITY IDENTIFICATION EVALUATION (TIE) AND DILUTION SERIES

Discharge to receiving waters and sediment must be evaluated using aquatic toxicity testing. The purpose of the toxicity testing is to: 1) evaluate compliance with the narrative toxicity water quality objective; 2) identify the causes of toxicity when and where it is observed (e.g., metals, pesticides, ammonia, etc.); 3) evaluate any additive toxicity or synergistic effects due to the presence of multiple constituents; and 4) determine the sources of the toxicants identified.

1. WATER COLUMN TOXICITY. For Assessment Monitoring, water column toxicity analyses shall be conducted on 100% (undiluted) sample for the initial screening. A sufficient sample volume shall be collected in order to allow the laboratory to conduct a Toxicity Identification Evaluation (TIE) on the same sample, should toxicity be detected, in an effort to identify the cause of the toxicity. The TIE shall take place immediately if a 50% or greater difference in test organism mortality, as compared to the laboratory control, is detected at any time in an ambient sample during an acceptable *Ceriodaphnia dubia* or *Pimephales promelas* test. A TIE shall also be initiated immediately if a 50% or greater reduction in test organism growth is detected between an ambient sample and the laboratory control at the end of an acceptable *Selenastrum capricornutum* test. At a minimum, Phase I TIE¹ manipulations shall be conducted to determine the general class (e.g., metals, non-polar organics, polar organics) of the chemical causing toxicity. The laboratory report of TIE results submitted to the Central Valley Water Board must include a detailed description of the specific TIE manipulations that were utilized (Section B.5.5 of Attachment E).

If at any point during the initial toxicity screening the mortality reaches 100%, a multiple dilution test shall be initiated. The dilution series must be initiated within 24 hours of the sample reaching 100% mortality, and must include a minimum of five (5) sample dilutions in order to quantify the magnitude of the toxic response.

When a 'statistically significant' reduction is observed for a sample at the end of an acceptable test (i.e. meets the EPA test acceptability criteria), but the magnitude of the reduction between the sample and the control is <20%, follow-up field sampling will not be required. For samples that are 'statistically significant' at the end of an acceptable test and that exhibit a ≥ 20% reduction in organism response compared to the control, the Central Valley Water Board may require follow-up field sampling.

1. _____
¹ USEPA. 1991. Methods for Aquatic Toxicity Identification Evaluations. Phase I Toxicity Characterization Procedures. Office of Research and Development, Washington DC 20460. EPA-600-6-91-003.

Samples that exhibit a statistically significant reduction in organism response when compared to the laboratory control must be reported to the Central Valley Water Board as an exceedance of the narrative water quality objective for toxicity.

2. SEDIMENT TOXICITY. For Assessment Monitoring, sampling and analysis for sediment toxicity shall be carried out at each location established by the Sacramento Valley Coalition for water quality monitoring, if appropriate sediment (i.e., silt, clay) is present at the site. If appropriate sediment is not present at the designated water quality monitoring site, an alternative site with appropriate sediment shall be designated for all sediment collection and toxicity testing events. Sediment samples shall be collected and analyzed for toxicity twice per year, with one sample collected between August 15 and October 15, and one sample collected between March 1 and April 30, during each year of Assessment Monitoring (Section 4.9(e) of Attachment E). The Executive Officer may request different sample collection timing and frequency under a Management Plan. If the Coalition wishes to deviate from the written timing and frequency requirements, the Coalition Group representative must provide a written, scientifically defensible justification for the change. The justification must address the intent of the MRP Order requirement, be scientifically based, and approved by the Executive Officer.

Sediment samples for Assessment Monitoring that show “statistically significant” toxicity to *Hyalella azteca* at the end of an acceptable test and that exhibit a $\geq 20\%$ reduction in organism survival compared to the control will require pesticide analysis of the same sample in an effort to determine the possible cause of toxicity. The Coalition may choose to also follow up with a sediment TIE (USEPA 2007) when there is $\geq 50\%$ reduction in test organism mortality, as compared to the laboratory control. Sediment TIEs are an optional tool that can be used to determine possible causes of toxicity. When sediment samples are collected for toxicity analysis, additional sample volume sufficient for the recommended chemical and physical analyses must be collected. This additional sample volume must be held in frozen storage until the results of the toxicity analysis are available. If the sample is not toxic to the test species, the additional sample volume can be discarded.

All sediment samples must be analyzed for total organic carbon (TOC) and grain size. Analysis for TOC is necessary to evaluate the expected magnitude of toxicity to the test species. If the toxicity criterion described above is exceeded, then the additional sample volume must also be analyzed for (at a minimum) bifenthrin, cyfluthrin, lambda-cyhalothrin, cypermethrin, deltamethrin, esfenvalerate, fenpropathrin, permethrin, and chlorpyrifos. Analysis at practical reporting limits of 1 ng/g on a dry weight basis for each pesticide is required to allow comparison to established lethal concentrations of these chemicals to the test species. This follow-up analysis must begin within five business days of when the toxicity criterion described above is exceeded.

Locations that have exhibited sediment toxicity more than once shall require continued special project monitoring at least twice yearly. Sites that are sampled for sediment toxicity and/or chemistry under special project monitoring and are included in an approved Management Plan shall not require Assessment Monitoring.

PART IV. REPORTING REQUIREMENTS

In addition to the Sacramento Valley Coalition's QAPP and Management Plan submittals, Annual Monitoring Reports (AMRs) and Quarterly Data Reports must be provided as described below. Exceedance Reports are also required for every exceedance of water quality standards. Management Plans are required when more than one exceedance of any water quality standard occurs at a particular site within any three year period, or if requested by the Executive Officer.

A. QUARTERLY SUBMITTALS OF MONITORING RESULTS

Each quarter the Coalition Group shall submit the previous quarter monitoring results in electronic format. The dates of these submittals shall be as listed in Table III.A below.

**TABLE III.A
QUARTERLY MONITORING DATA REPORTING SCHEDULE**

DUE DATE	TYPE	REPORTING PERIOD
1 March	Annual Report	1 October to 30 September ¹
1 March	Quarterly Monitoring Data Report	1 October through 31 December of previous calendar year
1 June	Quarterly Monitoring Data Report	1 January through 31 March of same calendar year
1 September	Quarterly Monitoring Data Report	1 April through 30 June of same calendar year
1 December	Quarterly Monitoring Data Report	1 July through 30 September of same calendar year

1. The Annual Report due on 1 March includes one hydrologic water year prior to the Annual Report calendar year. This will encompass the following periods: 1 October through 31 December two years prior to the Annual Report year, and 1 January through 30 September of the year prior to the Annual Report year.

The Quarterly Submittal of Monitoring Data Reports shall include the following:

1. Electronic submittal in SWAMP comparable format as described in Section III.B,
2. Electronic copies of field and laboratory reports and quality control reports
3. Copies of all laboratory analytical reports as attachments or on a CD
4. For toxicity reports, all laboratory raw data must include the following:

- a. copies of all original lab sheets
 - b. results of individual replicates, such that all calculations and statistics can be reconstructed
5. For chemistry data analytical reports must include, at a minimum, the following:
 - a. a lab narrative describing QC failures
 - b. analytical problems and anomalous occurrences
 - c. chain of custody (COCs) and sample receipt documentation
 - d. all sample results for contract and subcontract laboratories with PQLs
 - e. results for all QC samples including all field and laboratory blanks
 - f. results of lab control spikes, matrix spikes, field and laboratory duplicates and surrogate recoveries, summaries of initial and continuing calibrations and blanks, and sample injection or sequence logs.

B. ANNUAL MONITORING REPORTS

The Annual Monitoring Report shall be submitted by **1 March**, covering the monitoring periods from the previous hydrologic water year. This will encompass the following periods: 1 October through 31 December two years prior to the Annual Report year, and 1 January through 30 September of the year prior to the Annual Report year. Each monitoring report shall include the following components:

1. Signed Transmittal Letter;
2. Title page;
3. Table of contents;
4. Executive Summary;
5. Description of the Coalition Group geographical area;
6. Monitoring objectives and design;
7. Sampling site descriptions and rainfall records for the time period covered under the AMR;
8. Location map(s) of sampling sites, crops and land uses;
9. Tabulated results of all analyses arranged in tabular form so that the required information is readily discernible (example table is included in MRP Order Attachment C);
10. Discussion of data to clearly illustrate compliance with the Coalition Group Conditional Waiver, water quality standards, and trigger limits;
11. Electronic data submitted in a SWAMP comparable format;
12. Sampling and analytical methods used;
13. Copy of chain-of-custody forms;
14. Field data sheets, signed laboratory reports, laboratory raw data (as identified in Attachment E), submitted electronically;
15. Associated laboratory and field quality control samples results;
16. Summary of Quality Assurance Evaluation results (as identified in Attachment E for Precision, Accuracy and Completeness);

17. Specification of the method(s) used to obtain flow at each monitoring site during each monitoring event;
18. Electronic or hard copies of photos obtained from all monitoring sites, clearly labeled with site ID and date.
19. Summary of exceedances occurring during the reporting period and related pesticide use information;
20. Actions taken to address water quality exceedances that have occurred, including but not limited to, revised or additional management practices implemented;
21. Status update on preparation and implementation of all Management Plans and other special projects;
22. Assessment of monitoring data to identify subwatershed or Coalition-wide trends and patterns.
23. Conclusions and recommendations.

Additional requirements and clarifications necessary for the above annual report components are described below:

Report Component No. 1—Signed Transmittal Letter

A transmittal letter shall accompany each report. The transmittal letter shall be signed and contain a penalty of perjury statement by the Coalition Group's authorized agent. This statement shall state:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for knowingly submitting false information, including the possibility of fine and imprisonment for violations."

Report Component No. 8—Location Maps

Location map(s) showing the sampling sites, crops, and land uses within the Coalition Group's geographic area must be updated once per year (based on **available** sources of information) and included in the Annual Monitoring Report. An accompanying list or table of monitoring site information must include the site name and identification number, ILRP station code number, and Global Positioning System (GPS) coordinates. The map(s) must contain a level of detail that ensures they are informative and useful. GPS coordinates must be provided as latitude and longitude in the decimal degree coordinate system (at a minimum of five decimal places). The datum must be either WGS 1984 or NAD83, and clearly identified on the map. The source and date of all data layers must be identified on the map(s).

Report Component No. 9 – Tabulated results

In reporting monitoring data, the Coalition Group shall arrange the data in tabular form so that the required information is readily discernible. The data shall be summarized in such a manner to clearly illustrate compliance with the Coalition Group Conditional Waiver.

Report Component No. 10—Data Discussion to Illustrate Compliance

The annual report shall include a discussion of the Coalition Group's data to illustrate compliance with the Coalition Group Conditional Waiver. If a required component was not met, an explanation for the missing data must be included. Results must also be compared to water quality standards and trigger limits.

Report Component No.11—Electronic Data Submittal

Electronic submittal of the field and laboratory data in a SWAMP comparable format must be included within each quarterly monitoring report and AMR. Electronic submittal of monitoring data must be received by the Central Valley Water Board at the quarterly intervals described in Section IV.A. Exceptions to due dates for submittal of electronic data may be granted by the Executive Officer if sufficient rationale exists.

All laboratory data must be entered and submitted within the ILRP SWAMP comparable data spreadsheets (EXCEL, or similar spreadsheet) provided by the Central Valley Water Board staff. The Sacramento Valley Coalition will be required to use and complete ILRP SWAMP comparable field sheets (paper copy) as well as the required spreadsheets for submittal of laboratory data. The completed SWAMP comparable field sheets must be included within the AMR.

Data submitted must be SWAMP comparable in a content and format that is consistent with the requirements of the ILRP. Data that is considered SWAMP comparable must meet the following conditions:

1. Electronic data must be formatted and follow the specifications in the most current *Required Data Submission Format*, which will be provided to the Coalition and posted on the ILRP website. This document will be updated on a regular basis to ensure comparability with the SWAMP Program.
2. In addition to the field sample results for laboratory analyses, the content of the submittals must include field and laboratory quality control results as prescribed within the Attachment E, including but not limited to spike analyses, blanks, surrogates and certified reference materials, if applicable.
3. For toxicity analyses, the content of electronic data submittals must include the following:

- Individual sample results
 - Negative control summary results
 - Replicate results
4. For toxicity analyses, the minimum water quality measurements performed on the test water shall include: electrical conductivity, pH, Ammonia, Temperature, and Dissolved Oxygen. The timing and frequency of these measurements will be determined by the method. If daily measurements are taken then the minimum and maximum measurements of the range must be reported.
 5. Data that does not meet the project quality assurance acceptance guidelines must be flagged accordingly and must include brief notes detailing the problem within the provided comments field.

Prior to submittal, the data shall be reviewed by the Coalition and determined to the best of their knowledge to be free of errors and in conformance with the project quality assurance acceptance guidelines outlined in Attachment E. The procedures for data entry and data review must follow those outlined in Attachment E.

Report Components No.13, No.14, and No.15—Copies of Laboratory Reports, Chain-of-Custody Forms and Raw Data.

Copies of all laboratory analytical reports must be included in the monitoring reports as attachments or provided electronically on a CD. For toxicity reports, all laboratory raw data must be included in the analytical report (including data for failed tests), including copies of all original bench sheets showing the results of individual replicates, such that all calculations and statistics can be reconstructed. For chemistry data, analytical reports must include, at a minimum, the following: a lab narrative describing QC failures, analytical problems and anomalous occurrences; chain of custody (COCs) and sample receipt documentation; all sample results for contract and subcontract laboratories with units, RLs and MDLs; sample preparation, extraction and analysis dates; and results for all QC samples including all field and laboratory blanks, lab control spikes, matrix spikes, field and laboratory duplicates, and surrogate recoveries. Lab raw data such as chromatograms, spectra, summaries of initial and continuing calibrations, sample injection or sequence logs, prep sheets, etc., are not required for submittal, but must be retained for a minimum of five years and be provided to the Central Valley Water Board upon request. All original raw data must be maintained and available for a minimum of five years.

Report Component No.14—Field Data Sheets

Copies of all field documentation must be included in the monitoring reports as attachments or provided electronically on a CD. An example of an acceptable field data sheet is provided in Appendix C of MRP Order Attachment E. The monitoring reports

need to provide information on field conditions at sampling times including a description of the weather, rainfall, temperature, stream flow, color of the water, odor, and other relevant information that can help in data interpretation.

Report Component No. 16—Quality Assurance Evaluation (Precision, Accuracy and Completeness)

A summary of precision and accuracy results (both laboratory and field) is required in the annual monitoring report. The data quality indicators required for the ILRP are identified in MRP Order Attachment E; acceptance criteria for all measurements of precision and accuracy must be identified. The Coalition must review all QA/QC results to verify that protocols were followed and identify any results that did not meet acceptance criteria. A summary table or narrative description of all QA/QC results that did not meet objectives must be included in the annual report. Additionally, the report must include a discussion of how the failed QA/QC results affect the validity of the reported data. The corrective actions to be implemented are described in MRP Order Attachment E.

In addition to precision and accuracy, the Coalition must also calculate and report Completeness. Completeness includes the percentage of all quality control results that met acceptance criteria, as well as a determination of project completeness. For further explanation of this requirement, refer to MRP Order Attachment E. Completeness is also defined in MRP Order Attachment B (Applicable Definitions and Acronyms).

The Coalition may ask the laboratory to provide assistance with evaluation of their QA/QC data, provided that the Coalition prepares the summary table or narrative description of the results for the annual monitoring report.

Report Component No. 19—Summary of Exceedances

A summary of the exceedances that may have occurred during the monitoring period is required in the AMR. In the event of exceedances for pesticides or toxicity, pesticide use data must be included in the annual monitoring report. Pesticide use information will be acquired from the agricultural commissioner. This requirement is described further in the following section on Exceedance Reports.

Report Component No. 22—Assessment of Monitoring Data

An assessment of the Coalition's monitoring data is required in the AMR in order to identify whether long-term or broad trends and patterns exist. The Coalition shall evaluate their monitoring results in the context of their comprehensive monitoring database to determine whether exceedances or detections of monitored constituents show significant changes in number, temporal or spatial distribution, or magnitude on a subwatershed or Coalition-wide basis. The Coalition should incorporate pesticide use information, as needed, to assist in their data evaluation. Tables or graphs that illustrate and summarize the data evaluation should be utilized when possible.

C. EXCEEDANCE REPORTING

The Coalition Group shall provide exceedance reports if monitoring results show exceedances of water quality standards or trigger limits. When a water quality standard is exceeded at a monitoring location(s), the Coalition Group shall submit an Exceedance Report to the Central Valley Water Board. The estimated flow at the monitoring location and photographs of the site must be included. The Coalition Group shall evaluate all monitoring data and make a determination of an exceedance no later than five (5) business days after receiving the laboratory analytical reports for an event. The Exceedance Report shall be sent by email or fax (916-464-4780) to the Coalition's designated Central Valley Water Board staff contact within the next business day, describing the exceedance, the follow-up monitoring, and analysis or other actions the Coalition Group may take to address the exceedance.

When any pesticide or toxicity exceedance is identified at a location that is not under an approved Management Plan for toxicity or pesticides, follow-up actions must include an investigation of pesticide use within the watershed area that is physically associated with the exceedance location. For toxicity exceedances, this includes all pesticides applied within the area that drains to the monitoring site during the four weeks prior to the exceedance date. The pesticide use information may be acquired from the agricultural commissioner, or from information received from agriculture practitioners within the same drainage area. Results of the pesticide use investigation must be summarized and discussed in the annual monitoring report. Actions required at locations that are already described in an approved Management Plan for pesticides or toxicity will be identified in the Management Plan(s).

D. MANAGEMENT PLANS

If more than one exceedance of the same parameter at the same location occurs within a three-year period (that is not already addressed in an approved management plan), then a schedule for Management Plan development and implementation shall be provided to the Central Valley Water Board staff in the next Management Plan Update Report. The Executive Officer can require a written Management Plan for an exceedance of any constituent at any time. Management Plans may also be required when monitoring from other Water Board programs result in exceedances. A logical approach to prioritization of Management Plan activities can be addressed in the schedule. The Central Valley Water Board staff will then review the schedule for acceptability and either approve the proposed schedule or require that a different schedule be followed. The Coalition may also elect to develop a multi-Coalition Group monitoring effort for a waste constituent that is common to all of the parties involved.

Management Plans must begin with identification of the general type of land-use that is the probable source of the pollutant, such as agriculture, urban, forestry or other. If agriculture can be a source -- in whole or in part -- then further development of the

Management Plan as described below is required. If the general land-use source is unknown but could be the result of irrigated agriculture activities, then the Management Plan must include a study design to eliminate or confirm irrigated agriculture as a source. If a contaminant that is being addressed by the Management Plan can be reasonably assumed through source identification to be caused in whole or in part by irrigated agriculture land use, then additional Management Plan components must include the following:

1. Identification of irrigated agriculture source -- general practice or specific location -- that may be the cause of the water quality problem, or a study design to determine the source.
2. Identification of management practices to be implemented to address the exceedances.
3. Management practice implementation schedule. Implementation may occur through another Water Board regulatory program designed to address the specific exceedances.
4. Management practice performance goals with a schedule.
5. Waste-specific monitoring schedule.
6. A process and schedule for evaluating management practice effectiveness.
7. Identification of the participants and Coalition Group(s) that will implement the Management Plan.
8. An identified routine schedule of reporting to the Central Valley Water Board.

If the Coalition has identified multiple exceedances of different types of contaminants at multiple locations, a prioritization of the water quality problems to be addressed may be developed. The prioritization may include considerations such as extent, magnitude and duration, or be based on a design that assumes that resolution of one type of contaminant (such as sedimentation) may help resolve other types of measured exceedances (such as pesticides, toxicity, DO and pH). The assumptions and prioritizations shall be developed in coordination with the Central Valley Water Board staff, and be included as part of the Management Plan to be approved by the Executive Officer.

Management Plan Reporting must be at least as frequent as that required for the AMR, and shall provide frequent and sufficient information regarding achievement of the performance goals, and stages when evaluations will occur to determine the effectiveness of the management practice implementation, and if the Management Plan strategies need to be revised.

The Coalition shall take affirmative steps to identify appropriate management practices. Such steps may involve conducting management practices workshops and/or developing a management practices worksheet questionnaire to determine the management practices being used in the identified areas. The Coalition Group may conduct such

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outreach efforts or develop the workshops and worksheets with the assistance of the County Agricultural Commissioners, U.C. Cooperative Extension, or other appropriate resource groups or agencies.

At the request of the Coalition or upon recommendation by Central Valley Water Board staff, the Executive Officer may provide authorization to exempt the Coalition from the development of a Management Plan if the Executive Officer determines that the exceedance is not likely to be remedied or addressed by a Management Plan.

The Executive Officer may also require the Coalition and/or its member Dischargers to develop a Management Plan or to take additional actions if monitoring data or other information indicates that water quality may be jeopardized. The Executive Officer may also increase the monitoring requirements where monitoring results, pesticide use patterns, or other indicators suggest that the increase is warranted.

The Central Valley Water Board Executive Officer may revise this Sacramento Valley Coalition MRP Order as necessary, and the Coalition shall comply with the Sacramento Valley Coalition MRP Order as revised by the Executive Officer.

The Sacramento Valley Coalition, on behalf of the individual member Dischargers, shall implement the above monitoring and reporting program as of the date of this Order.



PAMELA C. CREEDON
Executive Officer

12-10-09

Date

Order Attachment A – Information Sheet

Order Attachment B – Definitions and Acronyms

Order Attachment C – Supporting Documentation

Order Attachment D – Requirements for Developing a Pilot Watershed Management Practice Plan

Order Attachment E – Requirements for a Quality Assurance Project Plan